

### **REMARKS**

This Amendment and Response is in reply to the Office Action of January 22, 2008. A three (3) month Petition For Extension of Time is filed concurrently herewith. Therefore, the time period for reply extends up to and includes July 22, 2008. Applicant wishes to thank the Examiner for careful review and consideration of the present application.

Applicant has amended claims 1, 13, and 20 to incorporate the subject matter in claims 5, 15, and 23, respectively. Claims 5, 15 and 23 have been cancelled without prejudice or disclaimer. Claims 1-4, 6-14, 16-22 and 24-31 remain pending in the application.

### **Claim Objections**

On page 2 of the Office Action, claim 20 is objected to because of an informality. Applicant has amended the preamble of claim 20 to delete the "according to..." phrase and to recite a method. Applicant requests that the objection to claim 20 be withdrawn.

### **Claim Rejections Under 35 USC § 102**

On page 2 of the Office Action, claims 1-31 are rejected under 35 U.S.C. § 102(b) as being anticipated by "Horizontal Core Acquisition and Orientation for Formation Evaluation" by Skopec et al. Applicant respectfully traverses the rejections.

First, claim 1 has been amended to incorporate the contents of claim 5 to recite that the core orientation device can be rotated to reflect the measure of the orientation of the core orientation device. The present application generally discloses a core orientation device that uses three internal silicon accelerometers operating along orthogonal directions X, Y and Z which measure the rotational orientation of the core orientation device about its longitudinal axis. See paragraphs [71] and [72] of the present application. The measurements of rotational orientation are stored at minute intervals. See paragraph [76]. When a core sample is obtained and the core is extracted, the stored rotational measurement data is used, in conjunction with the 'R' key of a membrane keypad, to determine a current rotational orientation. The core orientation device is

rotated so that the core contained within the inner tube assembly is moved into an orientation corresponding to its orientation at the time it was in the ground prior to extraction. See paragraph [88]. In the present application, the core orientation device is rotated at the surface, when the core sample is obtained and extracted, to reflect the measure of the orientation of the core orientation device as determined by the measured accelerometer rotational data stored at minute intervals. Claim 1 now recites:

and means for relating the measure of the orientation of the core orientation device with the present orientation thereof such that the core orientation device can be rotated to reflect the measure of the orientation of the core orientation device.

By contrast, Skopec et al. does not disclose or suggest that, “the core orientation device can be rotated to reflect the measure of the orientation of the core orientation device.” Instead, Skopec et al. discloses a different invention, using grooves and scribe lines, than that disclosed in the present application. The descriptions at pages 8 and 9 of Skopec et al. are limited to an Electronic Multishot Instrument (EMI) and how it records data during a core survey. In addition, the description of Figure 12 on page 16 of Skopec et al. only discloses a rotational comparison between the rotation of the principal scribe line and the rotation noted by the EMI. There is no disclosure in Skopec et al. that the core orientation device can be rotated to reflect the measure of the core orientation device. Therefore, it is submitted that Skopec et al. does not disclose all the elements of claim 1. Furthermore, since 2-4 and 6-12 depend either directly or indirectly from claim 1, claims 2-4 and 6-12 are also allowable.

Next, claim 13 has been amended to incorporate the contents of claim 15 to recite that the core orientation device can be rotated to reflect the measure of the orientation of the core orientation device. As discussed above, Skopec et al. does not disclose or suggest that the core orientation device can be rotated to reflect the measure of the orientation of the core orientation device. Table 2 of Skopec et al. merely presents calculated data for a typical core survey as recorded by the EMI device. Therefore, it is submitted that Skopec et al. does not disclose all the elements of claim 13. Furthermore,

since claims 14 and 16-19 depend either directly or indirectly from claim 13, claims 14 and 16-19 are also allowable.

Third, claim 20 has been amended to incorporate the contents of claim 23 to recite displaying a related measure of the orientation of the device and varying the related measure of orientation of the device upon rotation of the core sample of the device such that a user can position the core sample and device in the measured orientation for marking. By contrast Skopec et al., as discussed above does not disclose or suggest varying the related measure of orientation of the device upon rotation of the core sample of the device such that a user can position the core sample and device in the measured orientation for marking. Table 2 of Skopec et al. merely presents calculated data for a typical core survey as recorded by the EMI device. Figure 11 shows a core section with orientation grooves and Figure 12 shows a groove rotation report. In addition, the description of Figure 12 on page 16 of Skopec et al. only discloses a rotational comparison between the rotation of the principal scribe line and the rotation noted by the EMI. There is no disclosure in Skopec et al. that the core orientation device can be rotated to reflect the measure of the core orientation device. Therefore, it is submitted that Skopec et al. does not disclose all the elements of claim 20. Furthermore, since claims 21-22 depend from claim 20, claims 21-22 are also allowable.

Fourth, regarding claim 24, Skopec et al. does not disclose or suggest means for inputting a selected time interval, means for relating the selected time interval to one of the predetermined time intervals and providing an indication of the orientation of the device at the selected time interval as recited in claim 24 of the present application. The discussion on pages 8 and 9 of Skopec et al. is limited to descriptions of the EMI and how it records data during a core survey. Therefore, it is submitted that Skopec et al. does not disclose all the elements of claim 24. Furthermore, since claims 25-26 and 29 depend from claim 24, claims 25-26 and 29 are also allowable.

Fifth, regarding claim 27, Skopec et al. does not disclose or suggest means for inputting a signal representative of a selected time interval to the processor, the processor operating to relate the selected time interval to the predetermined time intervals and output a signal indicative of the orientation of the device at the selected time interval as

recited in claim 27 of the present application. The description on the fourth paragraph of page 7 relates to depth versus time and not to inputting a signal representative of a selected time interval as discussed above. In addition, the description on page 9, lines 12 to 22 of Skopec et al. discloses data sets taken every two minutes while coring. This description does not disclose or suggest inputting a signal representative of a selected time interval, relating the selected time interval to the predetermined time intervals and outputting a signal indicative of the orientation of the device, as disclosed above. Therefore, it is submitted that Skopec et al. does not disclose all the elements of claim 27. Furthermore, since claims 28 and 30 depend from claim 27, claims 28 and 30 are allowable.

Sixth, regarding claim 31, Skopec et al. does not disclose or suggest recording the specific time interval beyond the reference time at which the core sample was separated from the body of material as recited in claim 31 of the present application. Therefore, it is submitted that claim 31 is allowable.

Seventh, the present application has a broader range than the invention disclosed in Skopec et al. Skopec et al. deals mainly with horizontal core drilling whereas the claimed invention has a broader range up to and including near vertical core drilling. Furthermore, the measuring and readout system disclosed in the present application are incorporated in a single purpose designed unit and thus there is no need to separate the tool and the PC.

In view of the foregoing, reconsideration and withdrawal of the Examiner's § 102(b) rejections is requested. Applicant does not otherwise concede the correctness of the rejections and reserves the right to make additional arguments as may be necessary.

#### **Notice of References Cited**

One of the references cited by the Examiner (U.S. Patent No. 6,592,875) refers to a method for treatment of Lyme disease and thus was most likely cited due to an error. The Examiner is requested to correct this issue in the next communication.

**Conclusion**

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.



Dated: \_\_\_\_\_

22 July 2008

BHB/BR

Respectfully submitted,

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By \_\_\_\_\_

A handwritten signature in black ink, appearing to read "B-H-B", with a long, sweeping horizontal stroke extending to the right.

Brian H. Batzli  
Reg. No. 32,960